

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



PCT

(43) International Publication Date
22 September 2005 (22.09.2005)

(10) International Publication Number
WO 2005/086705 A3

(51) International Patent Classification:
G05F 1/613 (2006.01) *G05F 1/44* (2006.01)

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:
PCT/US2005/007127

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(22) International Filing Date: 4 March 2005 (04.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/550,358 4 March 2004 (04.03.2004) US

(71) Applicant (*for all designated States except US*): ARIZONA BOARD OF REGENTS for and on behalf of ARIZONA STATE UNIVERSITY [US/US]; 699 S. Mill Avenue, Suite 601, Room 691 AA, Tempe, AZ 85281 (US).

Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:
1 February 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): ISLAM, Md Murshidul [BD/US]; 1137 East Orange Street, Apt. 31, Tempe, AZ 85281 (US). ALLEE, David, R. [US/US]; 825 West Edgemont Avenue, Phoenix, AZ 85007 (US). KONASANI, Vankata, Sivaram, Prasad [IN/US]; 1140 East Orange Street, Apt. 106, Tempe, AZ 85281 (US). RODRIGUEZ, Armando, A. [US/US]; 9618 South Ash Avenue, Tempe, AZ 85284 (US).

(74) Agent: NOBLITT, Daniel, J.; Noblitt & Gilmore, LLC, 4800 North Scottsdale Road, Suite 6000, Scottsdale, AZ 85251 (US).

WO 2005/086705 A3

(54) Title: METHODS AND APPARATUS FOR ELECTRIC SUPPLY

(57) Abstract: An electrical system according to various aspects of the present invention includes a supply configured to provide a signal at a desired level. The supply monitors the output signal and compares the output signal to multiple thresholds. If the signal crosses a coarse-adjustment threshold, the supply coarsely adjusts the output to the load to quickly drive the signal toward the target level. If the signal crosses a fine adjustment threshold, the supply finely adjusts the output.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/07127

A. CLASSIFICATION OF SUBJECT MATTER

IPC: G05F 1/613(2006.01);G05F 1/44(2006.01)

USPC: 323/222,283

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 323/222,283

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,691,669 A (Tsai et al.) 25 November 1997 (25.11.1997), column 12, line 45-60.	1,17
X	US 6,229,288 B1 A (Baretich et al.) 8 May 2001(08.05.2001), column 33, line 10-20	1-21
A	US 6,351,164 A (Yoshie) 26 February 2002 (26.02.2002), column 3, line 50-65.	1,17



Further documents are listed in the continuation of Box C.



See patent family annex.

• Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

10 August 2006 / 10.08.2006

Date of mailing of the international search report

20 NOV 2006

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

Authorized officer

Rajnikant B. Patel

Telephone No. 571-272-2082